

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

**Kari Peltonen et al**

Atty. Ref.: **30-537**

Serial No. **(Unknown)**

Group: **1723**

Filed: **January 11, 2001**

Examiner: **M. Ocampo**

For: **METHOD AND APPARATUS FOR MIXING PULP  
SUSPENSION WITH A FLUID MEDIUM WITH A FREELY  
ROTATABLE MIXING ROTOR**

\* \* \* \* \*

January 11, 2001

Honorable Commissioner of Patents  
and Trademarks  
Washington, DC 20231

Sir:

**PRELIMINARY AMENDMENT**

Prior to examination, please amend the above-identified application as follows:

**IN THE CLAIMS**

Please cancel claims 1-23.

Please add the following new claims:

- 24. Apparatus for mixing a fluid medium with a solids-liquid suspension, comprising:
- a mixer casing having an inlet attached by a flange to inlet piping, and an outlet;
  - a conduit for feeding the fluid medium into said casing or inlet piping; and

a rotor freely rotatably mounted in said casing for free rotation about an axis of rotation.

25. Apparatus as recited in claim 24, wherein said inlet is provided with at least one throttling member which throttles the flow of fluid into said casing.

26. Apparatus as recited in claim 25, wherein said throttling member comprises at least one rib mounted in the vicinity of said inlet in said casing for causing the mass center of the flow of fluid entering said casing to deviate from flow centered on said axis of rotation.

27. Apparatus as recited in claim 25, wherein said throttling member comprises a valve mounted in the vicinity of said inlet for causing the mass center of the flow of fluid entering said casing to deviate from flow centered on said axis of rotation.

28. Apparatus as recited in claim 27, wherein said valve comprises part of said casing, or is attached to said inlet flange of said casing, or comprises part of said inlet piping.

29. Apparatus as recited in claim 24, further comprising at least one stationary mixing member disposed within said casing.

30. Apparatus as recited in claim 29, wherein said at least one stationary mixing member is mounted at least 90 degrees from said outlet opposite the direction of rotation of said rotor.

31. Apparatus as recited in claim 29, wherein said stationary mixing member comprises a rib attached to a wall of said casing.

32. Apparatus as recited in claim 24, wherein said outlet includes a diffuser-like outlet pipe which recovers dynamic pressure from the flow of mixed pulp.

33. Apparatus as recited in claim 24, wherein said rotor has a center; and wherein said rotor is formed of a shaft mounted on bearings in said casing, and blades which leave said rotor center open.

34. Apparatus as recited in claim 24, wherein said inlet and outlet are disposed with respect to each other so that the direction of flow of fluid changes at most about 100 degrees from said inlet to said outlet.

35. Apparatus as recited in claim 24, wherein said outlet is tangential to the direction of rotation of said rotor.

36. Apparatus as recited in claim 24, wherein said conduit feeds the fluid medium and a solids-liquid suspension into said casing or inlet piping, and wherein said rotor includes mixing blades which are contacted by the fluid medium and solids-liquid suspension introduced by said conduit so that rotation of the mixing rotor is effected. --

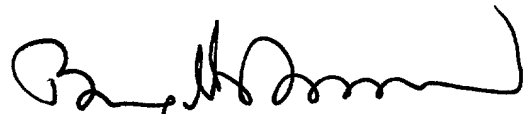
**REMARKS**

The above amendments are made to present claims directed to a patentably distinct invention non-elected for prosecution in the parent application. An early and favorable reply on the merits is awaited.

Respectfully submitted,

**NIXON & VANDERHYE P.C.**

By: \_\_\_\_\_



Bryan H. Davidson  
Reg. No. 30,251

BHD:fmh  
1100 North Glebe Road, 8th Floor  
Arlington, VA 22201-4714  
Telephone: (703) 816-4000  
Facsimile: (703) 816-4100